Autumn and the Environmental Gardener by Dan Welker

Composting: All those fallen leaves and garden trimmings make excellent additions to the compost pile. What you begin to compost now will make an excellent soil amendment or mulch next year. If you haven't already started a compost pile, now is a good time to begin. It can be as simple as piling the leaves behind your garage (like I do) and waiting for nature to take her course (albeit at a slower rate) or more scientific ways that speed up the process. Check out one of the many internet sites that offer help on composting; PA DEP has a good one.

Mulching: Composted organic matter and dried grass clippings make fine mulches for around trees and shrubs. Mulch helps to conserve moisture, deter weeds, keep soil temperature more moderate and reduce soil compaction and runoff. After the growing season it's also good to cover most perennials with mulch to prevent repeated freezing and thawing from heaving plants out of the ground. Apply a 2-3" layer over the roots but not touching the trunk (on trees and shrubs).

Planting: Fall is an excellent time to plant most trees, shrubs and perennials and often there are end of the year sales as a further enticement. Before you buy, however, remember the maxim "The right plant for the right location." So, first, assess your site conditions taking into account such factors as amount of sunlight, drainage characteristics (well, average, or poorly-draining), and general soil type (sand, loam, clay, pH, etc.). Next, determine the maximum size and other plant characteristics (such as evergreen or deciduous) you desire. Then check some reference sources to find plants that match your needs, site conditions. One of my favorite reference books is Gary Hightshoe's "Native Trees, Shrubs and Vines for Urban and Rural America". The EPA website www.epa.gov/reg3esd1/garden has both plant lists and links to nurseries that sell them. Click here for some recommended trees and shrubs for the Delaware Valley.

Three non-profit organizations are hosting native plant sales this fall. Bowman's Hill Wildflower Preserve in Bucks County, PA has one the weekends of September 7 and 15; the Wildlands Conservancy in Emmaus, PA is having one September 6-7; and Cylburn Arboretum in Lutherville, MD has theirs on September 9. In addition to offering nice selections of locally-native plants at reasonable prices, proceeds are pumped back into the environmental efforts of these organizations.

Dividing/Transplanting: Expand on your beds of native plants and share excess ones with friends, neighbors. Fall is generally an ideal time to do both.

Preparation for spring planting: After a long bleak winter we're usually anxious to begin gardening in early spring, but the ground is often too cold and saturated to work. So fall is a good time to prepare new planting beds. This can be done anytime before the ground freezes. The process usually begins with turf removal, though if you plan ahead you can kill the grass by smothering it under plastic or newspaper for a couple months. Next, you'll want to till the soil, mechanically or by hand. Two shovels deep is best. This is followed by amending the soil - mixing in additives to improve the soil, make it better suited for the plants you've chosen. Ideally, a soil sample analysis should be done at this time to help you determine needs. But composted horse or cow manure and the product of your

composting efforts usually make excellent additions.

Lawns: While the environmental gardener doesn't dote on lawns, they do have their place and proper care can reduce their harm. Many people are now aware of the problems excess nitrogen causes in our streams, lakes and estuaries. Much of this comes from improper or over-fertilization of lawns. Some of the nutrients a healthy lawn needs can come from grass clippings if they're allowed to remain and naturally decompose on the lawn. If this "grasscycling" is practiced routinely one additional annual feeding is the most that your lawn will need.

And this is best done in the fall if you have the more-common used cool season grasses (e.g., fescues and bluegrass). If you have warm season grasses like Bermuda grass or zoysia grass fertilization is best done in the summer. But before you run out and buy fertilizer and risk wasting your money and causing more harm than good, have your soil tested for nutrients and pH; this can be accomplished through your county's Cooperative Extension Service*.

If you're seeding a new lawn or overseeding an existing one, fall (up till mid-October) is the best time. During this time grass will have less competition from germinating weeds and less stress from high temperatures. Use a mixture of grass species that's appropriate to your area. With a mix you'll provide greater plant diversity with improved resistence to diseases and other environmental stresses, and usually have a greener lawn during droughts. Check with your county's Cooperative Extension Service for recommendations.

Birdfeeding: Stop feeding hummingbirds in early October as they migrate South for the colder months; sterilize the feeder and put it away until spring. In November begin feeding songbirds with thistle, sunflower and other seeds as their natural supply of food begins to get exhausted or covered by snow. Once you begin to feed birds, however, it's important to keep it up throughout the winter. The practice encourages more birds than usual to overwinter in your area, putting them at risk should you stop before late spring when there more abundant natural sources of food become available.

*USDA's Cooperative Extension Service provides gardeners with valuable services, most of which are free (there's a nominal fee for soil analysis work), and every gardener should get to know their county's extension agents. Extension Agents receive extensive horticultural training and are linked to a major state university, like Penn State, involved in agricultural/horticultural research. You can find your local office by checking the Blue Pages of your phone book or through an Internet search.